| Essential Learning | # | Components | Suggested | |
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| Activities | Assessments |
| **VCS T 5.1 Understand the ethical, cultural, and societal issues related to technology**  AK Standard: E1, E2, E3, E4, E5, E6, E7, E8  ISTE Standard: 5a, 5b, 5c, 5d | VCS 5.1.1 | Evaluate ways that technology impacts culture and the environment | Recognize the risks of technology to personal health  Explain the impact of technology on the environment | Oral quiz  Teacher observation  Online test  Skills checklist |
|  | VCS 5.1.2 | Practice responsible use of technology systems, information, and software | Understand the importance of anti-virus software and the 8e6 web browsing filter  Take an online test on responsible use and internet safety |
|  | VCS 5.1.3 | Develop positive attitudes towards technology use that supports lifelong learning, collaboration, personal pursuits, and productivity | Demonstrate the appropriate care of all appropriate technology systems and equipment  Access appropriate grade-level websites and games as a reward or free choice activity |
| **VCS T 5.2 Utilize basic input devices**  AK Standard: A1  ISTE Standard: 6a | VCS  5.2.1 | Use appropriate mouse skills | Apply previously-learned mouse skills to the laptop touchpad, including:  Determine when a point, click, drag, drag-and-drop, double-click, or triple-click is necessary to accomplish a task  Demonstrate right-click and/or control-click  Drag-and-drop highlighted text  Recognize mouse icons: I-beam, arrow, double-headed arrow, four-headed arrow, active link, wait icon | Teacher observation  Skills checklist  Rubric  Keyboarding quiz  Typing program results  Project Rubric |
|  | VCS 5.2.2 | Use appropriate keyboarding skills and techniques | Apply the keyboard shortcuts for save, quit, logout, new, open, and screenshot    Demonstrate appropriate keyboard posture while keeping eyes on the monitor  Practice keying words, phrases and sentences using the home row, QWERTY row, and ZXCVB row using the correct reaches  Key at 90% accuracy rate at 25 words per minute by the end of the year  Key rhythmically  Apply keyboarding skills to document creation and other computer tasks |
|  | VCS  5.2.3 | Use the keyboard to provide input to applications, software, and the internet | Create grade-level typewritten documents and reports using one-to-one laptop |
| **VCS T 5.3 Demonstrate an understanding of technology concepts, systems, and operations**  AK Standard: A1, A2, A3, A4, A5  ISTE Standard: 6a, 6b, 6c, 6d | VCS 5.3.1 | Recognize, define, and use technology terms, processes and systems | Describe the basic functions of a computer’s internal components: CD/DVD drive, processor, motherboard, memory, fan, power supply  Compare and contrast removable storage devices: flash drive, CD/DVD, SD cards  Use a digital camera to take pictures and transfer photos to a photo editing program using an SD card reader  Use a microphone to add sound to a presentation  Understand that the internet is made up of interconnected computers and how a server fits within this model  Understand domain names (.com, .net, .gov, .edu, .biz, etc.) and the differences between them | Oral quiz  Teacher observation  Skills checklist  Project Rubric |
|  | VCS 5.3.2 | Select and use applications effectively and productively | Use the page setup, margins, and orientation function to change page characteristics  Use bullets and numbering to format a list of items  Format a paragraph appropriately with tabs, line spacing, and alignment  Understand the basic functions and capabilities of Web 2.0 applications  Use an online drawing program to create graphics for products created in other applications |
|  | VCS 5.3.3 | Diagnose and solve common technology problems | Determine when the computer needs to be restarted and do so independently when necessary  Use trial-and-error process to troubleshoot problems |
| **VCS T 5.4 Demonstrate creative thinking and innovation**  AK Standard: D1  ISTE Standard: 1a, 1b, 1c, 1d | VCS 5.4.1 | Apply knowledge to develop new products using technology | Create a slideshow to sequence events in a fable or fairy tale  Create and format a multi-column table describing the unique characteristics of the types of salmon in Alaska | Teacher observation  Project Rubric  Skills checklist |
|  | VCS 5.4.2 | Create original products to convey ideas or as personal or group expression | Write a paragraph explaining steps necessary for self-improvement  Create a group slideshow |
|  | VCS 5.4.3 | Explore issues or ideas using models or simulations | Create a diagram or model of the water cycle  Create a diagram or model to explain the process of photosynthesis |
|  | VCS 5.4.4 | Use technology to forecast trends and possibilities | Play online weather prediction game  Graph data and use the information to make a prediction about future values on the graph |
| **VCS T 5.5 Use digital media and environments to communicate and work collaboratively**  AK Standard: D2, D3  ISTE Standard: 2a, 2b, 2c, 2d | VCS 5.5.1 | Convey ideas to a variety of audiences using digital media and tools | Embed video and links within projects or documents  Determine target audience and purpose of a presentation  Participate in a video Book Talk (response to a book of their choice) | Project Rubric  Teacher observation  Skills checklist |
|  | VCS 5.5.2 | Contribute to project teams to produce original works or solve problems | Create a digital project in small teams in which members have specific jobs (i.e. Team Leader, Resource Organizer, etc.) |
|  | VCS 5.5.3 | Use technology to interact with others to create cultural and global awareness | Communicate with students in another school district using e-mail or live videoconferencing |
| **VCS T 5.6 Apply digital tools to gather, evaluate and use information**  AK Standard: B1, B2, B3  ISTE Standard: 3b, 3c, 3d | VCS 5.6.1 | Use technology to locate, evaluate, select, and manage information and sources | Use boolean operations (+, -) and quotes (“) to narrow search results  Use the domain (.com, .net, .gov, .edu, .biz, etc.) to narrow search results  Edit bookmarks | Teacher observation  Skills checklist  Project Rubric |
|  | VCS 5.6.2 | Ethically use information from a variety of sources to process and present results | Follow the proper use of copyrighted materials and properly cite sources within a document  Apply the principles of fair use to write a piece of criticism or commentary that includes a portion of a copyrighted work |
|  | VCS 5.6.3 | Evaluate and select new resources and technology based on the appropriateness to specific tasks | Evaluate sources for potential sources of bias when doing research  Recognize fact and opinion when selecting resources for use |
| **VCS T 5.7 Use critical thinking skills to solve problems and make decisions**  AK Standard: C1, C2, C3  ISTE Standard: 4a, 4b, 4c, 4d | VCS 5.7.1 | Plan and conduct research for investigation of authentic problems | Use online resources (news web sites, organization web sites, etc.) to conduct research about their group science fair project | Skills checklist  Project Rubric |
|  | VCS 5.7.2 | Plan and develop solutions individually or with others to answer a question or complete a project | Plan and conduct a group science fair project |
|  | VCS 5.7.3 | Derive meaning by evaluating, combining, or extending information using multiple technologies | Create a well-organized, informative display board to present results of a group science fair project  Create a written report to include with a group science fair project that includes a graph, graphics or photos, text, and a chart of data |